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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,272	02/20/2002	Vyacheslav S. Belenko	CIT/K-0141	3409

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EXAMINER

TRUONG, THANHNGA B

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 08/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/078,272

Applicant(s)

BELENKO ET AL.

Examiner

Thanhnga B. Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figures 1 and 2 must show the element number that represents the element of each of the block diagrams. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 7-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuroda et al (US 6,707,774).

a. Referring to claim 1:

i. Kuroda teaches:

(1) receiving an original media data set that includes an original watermark, said original watermark including a first copy control information which is set to one of "copy freely", "copy for display only", "copy one generation", "copy never", and "no more copies" [i.e., in the case of carrying out a digital satellite broadcasting of a moving picture by the satellite broadcasting system 200 as

shown in Figure 1, for example, the digital video information DP transmitted from the satellite broadcasting system 200 and received by the satellite broadcasting receiver 301 is usually permitted to be recorded only once. In this case, the digital video information DP is One Copy. Further, when the digital video information DP such as a moving picture or the like is recorded in advance onto a read-only DVD 2 as shown in Figure 1 and the DVD 2 is sold in the market, the reproduction of the digital video information DP recorded on the DVD 2 is usually prohibited. In this case, the digital video information DP is Never Copy. Further, when the DVD 2 recorded with the digital video information DP is distributed free of charge, the copying of the digital video information DP is not restricted in many cases. In this case, the digital video information DP is Copy Free (column 7, lines 21-37)];

(2) analyzing said first copy control information to determine whether said first copy control information is set to "copy one generation" [i.e., Figure 8 is a control management table for showing a relationship between the statuses of the watermark, the copy protection code and the CGMS and the controls executed to these statuses by the controller 20. This control management table is recorded in advance in the memory of the controller 20, and the controller 20 carries out the record restriction control by using the control management table (column 14, lines 38-44)];

(3) playing said original media data set only if said first copy control information is set to "copy one generation" [i.e., One Copy means the permission of recording the digital video information DP or the analog video information AP onto a recording medium only once. In other words, by One Copy, making what is called a first-generation copy is permitted, but making copy of a second-generation and after is prohibited (column 7, lines 11-16). In addition, as shown in Figure 1, for example, the digital video information DP transmitted from the satellite broadcasting system 200 and received by the satellite broadcasting receiver 301 is usually permitted to be recorded only once. In this case, the digital video information DP is One Copy (column 7, lines 23-27)];

(4) embedding a player watermark into said played media data set, said player watermark including a second copy control information set to "no more copies"; and transferring said player watermark-embedded media data set to a recording device [i.e., the digital video information DP and the analog video information AP are embedded with a watermark, a copy protection code and a code based on CGMS (Copy Generation Management System) (hereinafter to be referred to as a "CGMS"). These are identification information for making the recording apparatus 10 and the reproducing apparatus 50 recognize the copy protection applied to the digital video information DP and the analog video information AP. The recording apparatus 10 and the reproducing apparatus 50 are based on a predetermined rule on the copy protection that prescribes a disposition, a decision method, a scrambling method, etc. of the watermark, the copy protection code and the CGMS, respectively. As described later, the recording apparatus 10 and the reproducing apparatus 50 can control the recording and reproduction of the digital video information DP and the analog video information AP based on the watermark, the copy protection code and the CGMS (column 7, lines 38-54). Furthermore, the copy protection code represents one of One Copy and No More Copy. "No More Copy" means the prohibition of copying any more as the One Copy digital video information DP or the One Copy analog video information AP has been recorded once onto the DVD 1 or the like. In this case, when the One Copy digital video information DP or the One Copy analog video information AP is once recorded onto the DVD 1 by the recording apparatus 10 and then the digital video information DP recorded on the DVD 1 is read out by the reproducing apparatus 50 and is converted into the analog video information AP and a result is output to the outside, the copy protection code of One Copy is changed to No More Copy by the reproducing apparatus 50 (column 7, lines 66-67 through column 8, lines 1-12)].

b. Referring to claims 2, 3:

i. Kuroda teaches:

(1) wherein said original watermark further includes watermark type and owner identification information; player identification information [i.e., the digital video information DP and the analog video information AP are embedded with a watermark, a copy protection code and a code based on CGMS (Copy Generation Management System) (hereinafter to be referred to as a "CGMS"). These are identification information for making the recording apparatus 10 and the reproducing apparatus 50 recognize the copy protection applied to the digital video information DP and the analog video information AP (column 7, lines 38-45)].

c. Referring to claim 7:

i. This claim has limitations that is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

d. Referring to claims 8, 9:

i. These claims have limitations that is similar to those of claims 2 and 3, thus they are rejected with the same rationale applied against claims 2 and 3 above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-6, 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroda et al (US 6,707,774).

a. Referring to claim 4:

i. Kuroda teaches:

(1) receiving an original media data set that includes an original watermark, said original watermark including a first copy control information which is set to one of "copy freely", "copy for display only", "copy one generation", "copy

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never", and "no more copies" [i.e., in the case of carrying out a digital satellite broadcasting of a moving picture by the satellite broadcasting system 200 as shown in Figure 1, for example, the digital video information DP transmitted from the satellite broadcasting system 200 and received by the satellite broadcasting receiver 301 is usually permitted to be recorded only once. In this case, the digital video information DP is One Copy. Further, when the digital video information DP such as a moving picture or the like is recorded in advance onto a read-only DVD 2 as shown in Figure 1 and the DVD 2 is sold in the market, the reproduction of the digital video information DP recorded on the DVD 2 is usually prohibited. In this case, the digital video information DP is Never Copy. Further, when the DVD 2 recorded with the digital video information DP is distributed free of charge, the copying of the digital video information DP is not restricted in many cases. In this case, the digital video information DP is Copy Free (column 7, lines 21-37)];

(2) analyzing said first copy control information to determine whether said first copy control information is set to "copy one generation" [i.e., Figure 8 is a control management table for showing a relationship between the statuses of the watermark, the copy protection code and the CGMS and the controls executed to these statuses by the controller 20. This control management table is recorded in advance in the memory of the controller 20, and the controller 20 carries out the record restriction control by using the control management table (column 14, lines 38-44)];

(3) playing said original media data set only if said first copy control information is set to "copy one generation" [i.e., One Copy means the permission of recording the digital video information DP or the analog video information AP onto a recording medium only once. In other words, by One Copy, making what is called a first-generation copy is permitted, but making copy of a second-generation and after is prohibited (column 7, lines 11-16). In addition, as shown in Figure 1, for example, the digital video information DP transmitted from the satellite broadcasting system 200 and received by the satellite

broadcasting receiver 301 is usually permitted to be recorded only once. In this case, the digital video information DP is One Copy (column 7, lines 23-27)];

(4) embedding a player watermark into said played media data set, said player watermark including a second copy control information set to "copy for display only"; and transferring said player watermark-embedded media data set to a displaying device [i.e., the digital video information DP and the analog video information AP are embedded with a watermark, a copy protection code and a code based on CGMS (Copy Generation Management System) (hereinafter to be referred to as a "CGMS"). These are identification information for making the recording apparatus 10 and the reproducing apparatus 50 recognize the copy protection applied to the digital video information DP and the analog video information AP. The recording apparatus 10 and the reproducing apparatus 50 are based on a predetermined rule on the copy protection that prescribes a disposition, a decision method, a scrambling method, etc. of the watermark, the copy protection code and the CGMS, respectively. As described later, the recording apparatus 10 and the reproducing apparatus 50 can control the recording and reproduction of the digital video information DP and the analog video information AP based on the watermark, the copy protection code and the CGMS (column 7, lines 38-54). Furthermore, the copy protection code represents one of One Copy and No More Copy. "No More Copy" means the prohibition of copying any more as the One Copy digital video information DP or the One Copy analog video information AP has been recorded once onto the DVD 1 or the like. In this case, when the One Copy digital video information DP or the One Copy analog video information AP is once recorded onto the DVD 1 by the recording apparatus 10 and then the digital video information DP recorded on the DVD 1 is read out by the reproducing apparatus 50 and is converted into the analog video information AP and a result is output to the outside, the copy protection code of One Copy is changed to No More Copy by the reproducing apparatus 50 (column 7, lines 66-67 through column 8, lines 1-12)].

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ii. Although Kuroda is silent about “copy for display only” is part of the Copy Generation Management System, Kuroda does imply:

(1) CGMS is the identification information for carrying out the copy protection based on the Copy Generation Management System, and this represents one of Never Copy, One Copy and Copy Free, like the watermark (**column 9, lines 5-8 of Kuroda**). Further, there is also proposed a method of restricting the copying of a picture or a video image by embedding identification information having a function similar to the above into the display range of the image or the video image as a watermark (**column 1, lines 66-67 through column 2, lines 1-3 of Kuroda**).

iii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) modify Kuroda’s CGMS (Copy Generation Management System) to include an additional code, such as “copy for display only” for reproducing digital information recorded on a recording disk such as a DVD, and more particularly to an information reproducing apparatus capable of prohibiting reproduction of digital information that has been illegally or unfairly copied (**column 1, lines 10-15 of Kuroda**).

iv. The ordinary skilled person would have been motivated to:

(1) modify Kuroda’s CGMS (Copy Generation Management System) to include an additional code, such as “copy for display only” since the act of copying a moving picture or the like without permission is restricted by the copyright law, etc. Particularly, when a moving picture or the like is copied digitally, there occurs no quality degradation in the moving picture copied. Accordingly, it is necessary to severely restrict the copying of digital video information using a DVD in order to promote the distribution of DVD as well (**column 1, lines 38-45 of Kuroda**).

b. Referring to claims 5, 6:

i. Kuroda teaches:

(1) wherein said original watermark further includes watermark type and owner identification information; player identification information [i.e., the digital video information DP and the analog video information AP are

embedded with a watermark, a copy protection code and a code based on CGMS (Copy Generation Management System) (hereinafter to be referred to as a "CGMS"). These are identification information for making the recording apparatus 10 and the reproducing apparatus 50 recognize the copy protection applied to the digital video information DP and the analog video information AP (column 7, lines 38-45)].

c. Referring to claim 10:

i. This claim has limitations that is similar to those of claim 4, thus it is rejected with the same rationale applied against claim 4 above.

d. Referring to claims 11, 12:

i. These claims have limitations that is similar to those of claims 5 and 6, thus they are rejected with the same rationale applied against claims 5 and 6 above.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Morito et al (US 6,310,956 B1) discloses an apparatus and method of copy protection for use in digital data recorders such as DVD-RAM recorders, which includes embedding transmission time information into a digital data stream by digital watermarking and comparing the transmission time with the current time at the data recorder (30, 50) (see abstract).

b. Ogino (US 6,802,011 B1) discloses at the time of performing signal processing of information signals to which copyright protection information has been added, signal processing which would make detection of copyright protection information difficult or impossible is restricted, based on the copyright protection information detected from the information signals (see abstract).

c. Kudora et al (US 6,633,723) (hereinafter Kuroda-723) discloses the record information includes: image information; a first identification information which represents any one of never copy, one copy and copy free; and a second identification information which represents either the never copy or the one copy (see abstract). This Kudora-723's system is also read on to claims 1-12 of the instance application.

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d. Davis et al (US 6,611,607) discloses a method for decoding auxiliary data from media signals in multimedia content decodes watermarks from different media signals and uses the watermarks to control processing of the multimedia content (see abstract).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhnga (Tanya) Truong whose telephone number is 571-272-3858.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

TBT

July 12, 2005


KIM VU
SUPERVISORY PATENT EXAMINER
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